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UNITED STATES DEPARTMENT OF AGRICULTURE

BULLETIN No. 290

Contribution from the Office of Markets and Rural Organization, CHARLES J. BRAND, Chief

Washington, D. C. August 30, 1915.

RAIL SHIPMENTS AND DISTRIBUTION OF FRESH TOMATOES, 1914.[1]

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INTRODUCTION.

There is probably no perishable vegetable commonly grown out of doors in the United States which appears upon the market through a longer season than does the tomato. Winter supplies are received from Cuba, and until railroad communication was interrupted by the recent troubles there was a constantly increasing production on the west coast of Mexico. The industry in Florida has been an important and rapidly increasing one until now shipments range around 5,000 to 6,000 carloads per year. The charts on page 6 show the average length of the shipping seasons for each of the principal producing areas and the relative quantities of tomatoes shipped from each of these districts. Florida opens the commercial shipping season in January, and throughout the first few months encounters comparatively little competition in the eastern markets. South Texas is a competitor during May and June, and it is possible that the production of this territory will be largely increased.

The two areas of important production which first come upon the market in direct competition are the southern Mississippi and east Texas areas. In each of these the heavy shipping season is short, extending through June and the first week of July. Every effort is made to rush the crop on the market as rapidly as possible. Practically all of the numerous growers in the State of Texas report that the shipping season begins about May 1 and ends about July 15. There are a few points, however, at which two crops of tomatoes are raised. From such points the second crop is shipped usually from

[1] About 95 per cent of the reports of shipments listed in this publication were furnished by railroad officials, to whom acknowledgment is made for their courtesy and assistance.

NOTE.—This bulletin is of general interest to tomato growers, shippers, dealers, transportation companies, and consumers, and to all engaged in the trade in tomatoes and vegetables.

October 15 to January 1. In southern California the tomato shipping season can be extended the year round, as the tomato grows there as a perennial.

The Texas and Mississippi territories are followed by west Tennessee and New Jersey, the former overlapping the Texas and Mississippi areas, while New Jersey usually comes on the market when the shipping seasons close in these two States. Shipments from other States may be said in a general way to move over shorter distances and to be of importance in a smaller number of the large markets.

Cuban, Mexican, Florida, and south Texas tomatoes, as a rule, have been luxuries or semiluxuries. The first shipments from Mississippi and northeastern Texas generally bring high prices, but when the shipments from these areas reach their height, tomatoes may be said first to come within the reach of the general purchasing public.

METHODS OF CULTIVATION AND SHIPPING.[1]

The system of cultivation in practically all of the southern tomato districts is not calculated to result in the greatest possible production per acre, but is designed to hasten maturity and to give a crop of uniform smooth tomatoes which can be marketed within the shortest possible time. Plants are staked, trimmed, and topped, and the fruit even may be thinned to limit the quantity, hasten maturity, and perfect the appearance of the individual specimens.

Large quantities are wrapped individually and packed very carefully in what the consumer would call a perfectly green state. The producers, however, consider a tomato "mature" when it has reached full size and appears smooth and well filled out. They are called "ripe" when they show the first tinge of pink or reddish color.

Green wrapped stock is shipped long distances under ventilation without refrigeration; but nearly all ripe stock, whether wrapped or not, is shipped under refrigeration. The last of the southern crop frequently is wasted because it does not sell to advantage in competition with locally grown northern tomatoes. The latter are larger, as a rule, than those grown in the South, where varieties are selected for early production and smoothness rather than for the size of the fruit.

METHODS USED IN COMPILING DATA.

In this publication an effort has been made to list largely by railroad stations the actual shipments of tomatoes for table use in 1914. Practically all of this information has been obtained from, or checked by, transportation companies, and while this tabulation may not be complete, it is believed to approximate very closely the actual carload movement.

[1] Farmers' Bulletin 642, "Tomato Growing in the South," by H. C. Thompson, 1915.

In the summer of 1914 inquiries were addressed by the Office of Markets and Rural Organization to station agents at all points from which there was any reason to believe that tomatoes were shipped in full carloads, and to every cooperative association handling the crop of which the department had any knowledge, asking for a record of the car-lot shipments in 1913 and an estimate of the shipments to be made in 1914. A growers' list was compiled with the object of obtaining reliable information on every phase of tomato marketing. After the shipping season of 1914 was ended the inquiry was renewed and has been followed up both by addressing local station agents and general railroad officials, until this office has definite reports on the shipments during 1914 from 330 shipping points at which tomatoes originate in car lots, and a statement from the transportation or shipping agencies as to the number of carloads shipped from each in that year.

DETAILED REPORT OF SHIPMENTS.

The tabulated statement placed at the conclusion of this bulletin shows the tomato shipping stations and the reported number of cars shipped from each during the 1914 season. No attempt has been made to list stations where no full cars originated. Yet at those stations where full cars did originate, the less than car-lot shipments have been ascertained, and have been reduced to equivalent carloads, and these are included in the tables here shown. The number of carloads shipped from many points varies greatly from year to year, due to seasonal variation and to the fact that the tomato crop, if unprofitable in any one section in any one year, is likely to be much reduced the next. For this reason the figures given for 1914 may be either much above or much below the average shipments, and there are no authentic figures for preceding years for comparison. In some cases certain stations are credited with less than car-lot shipments. The fact is that these stations normally ship in full carloads, but, owing to a short crop or other abnormal conditions in 1914, they did not ship their usual quantities. These figures are classified by States, and to some extent by shipping districts.

SHIPMENTS BY BOAT.

There are a number of localities in which the situation as to tomato shipments is somewhat complicated. This is particularly true of the territory surrounding the lakes and bays where many of the shipments are made by boats to markets located comparatively near to the points of origin. There are many small boat lines that handle considerable quantities of this commodity, and it has been found almost impossible to secure complete and accurate records of all these shipments. For instance, the region in the neighborhood of Benton

Harbor and St. Joseph, Mich., ships large quantities of tomatoes by boat to Chicago, and the region along Chesapeake Bay ships in the same manner considerable amounts to near-by cities.

LOCAL SHIPMENTS.

Near many cities large quantities of tomatoes are carried to market by trucks, electric lines, and other local transportation facilities. This renders it impossible to secure complete records of the entire commercial crop. Our main effort has been to secure material which will show the location and relative importance of the several districts which supply the major part of the tomatoes shipped to market over comparatively long distances. The data for Florida shipments in 1914 are unavoidably incomplete, inasmuch as one railroad system handling large quantities of Florida tomatoes has not yet submitted any report.

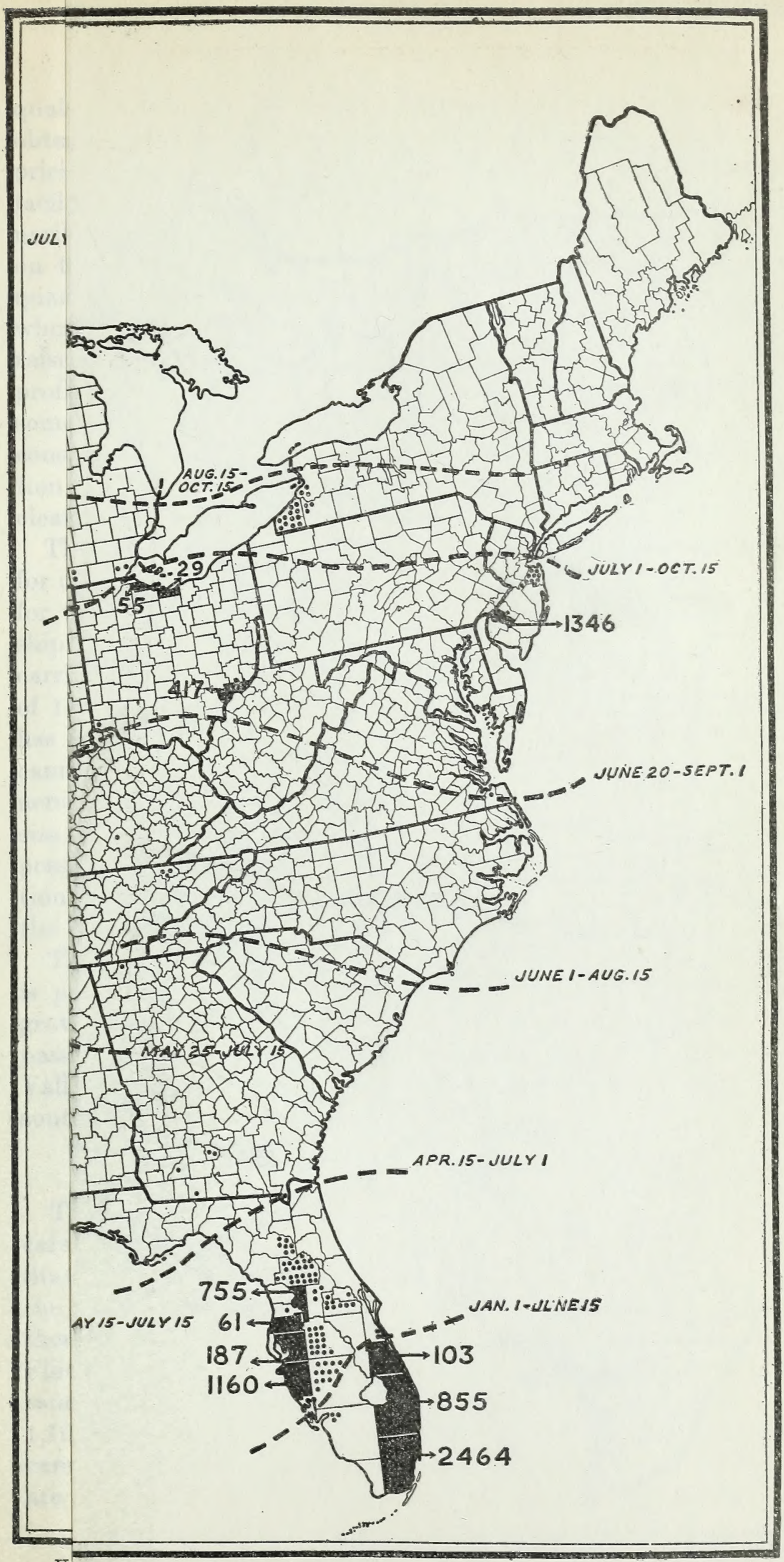
EXPLANATION OF MAP.

The accompanying map indicates the actual shipments of fresh tomatoes to market in the season of 1914. Each dot represents five cars, or fraction thereof. These dots are grouped in the county in which the stations are located, although it is well known that production does not actually follow the county lines. In cases where shipments are too heavy to be represented by dots the counties have been blacked in and the actual number of cars shipped given in figures. The size of the blackened area is not directly in proportion to the quantity shipped, but exact comparisons may be made by consulting the tabulation. The use of the county as the unit in map graphics necessitates this system.

The dates within which the various areas ship are shown by curved lines, all of the areas shipping at a given period being grouped in a zone under the line representing that period. The map in this way shows at a glance the various competing areas as well as the dates of heaviest crop movement. These dates are, of course, subject to seasonal variation of considerable extent.

TOMATOES FOR CANNING.

An important element in the tomato situation is the cannery supply. It is undoubtedly true that more tomatoes go to the canneries than to market as table stock. The modern methods of preparing this canned product have rendered it so wholesome and palatable, as well as economical, that this industry has developed very rapidly. Certain localities—Delaware and the eastern shore of Maryland and Virginia, and large areas in New York State, for instance—produce considerable quantities of tomatoes for this purpose. It is a fact, however, that general conditions as to quantity,



Unit of carloads indicated by figures.

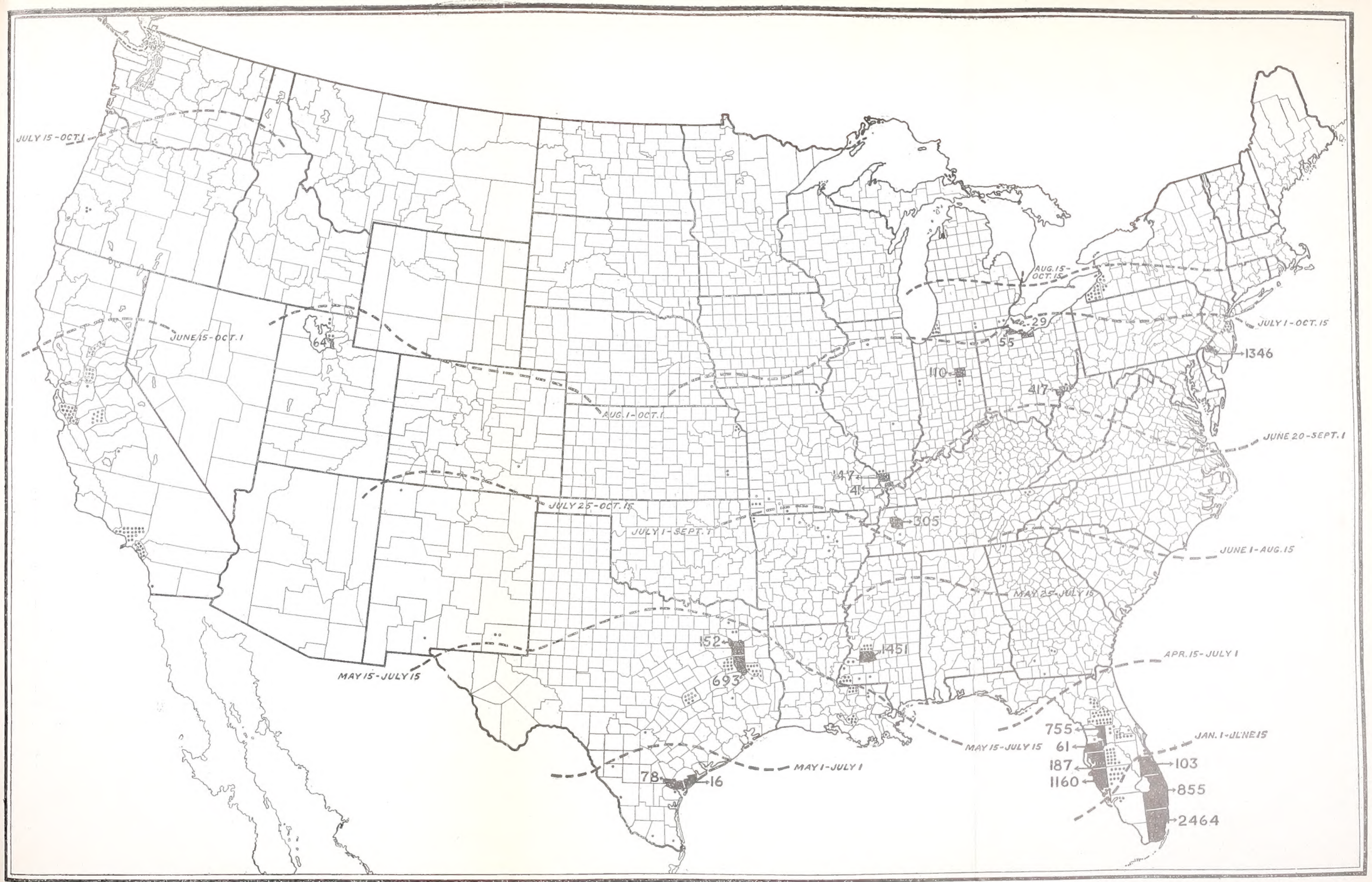


FIG. 1.—Map showing tomato shipments during the year 1914. Each dot represents 5 carloads (or fraction thereof). Black areas represent number of carloads indicated by figures.

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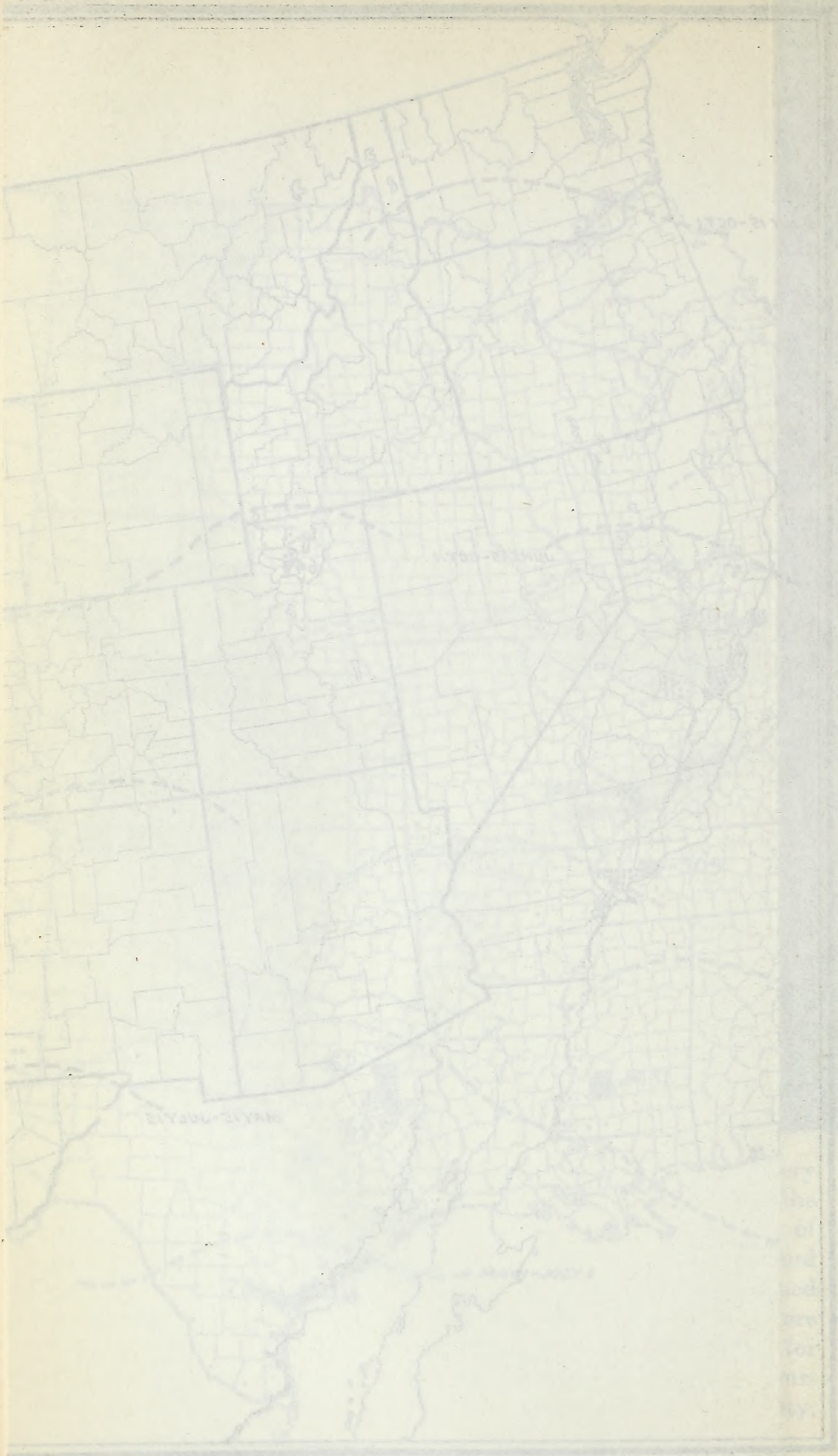

quality, and price of table stock, when the supplies are locally obtained, are much modified by the presence of canneries. When prices warrant it on account of small crop or poor transportation facilities from other regions a considerable amount of the crop ordinarily going to canneries may be placed upon the market fresh, while on the other hand a plentiful supply will cause very much larger quantities to be offered to the canneries. There are certain localities where the climatic conditions are such that cannery stock can be raised profitably, but where under ordinary conditions it is not profitable to produce tomatoes to ship fresh for table use. This is sometimes due to the long distance to market and the small local consuming population. A careful investigation of the cannery situation in reference to this crop undoubtedly will aid very much in a clear understanding of the whole tomato marketing situation.

The effort has been made to separate all figures for tomatoes used for canning stock and include in these tabulations only those shipped for table use. It is very difficult to distinguish accurately between shipments to market and shipments to canneries from the records of carriers in many sections. The tabulation on page 7 shows a total of 11,995 carloads of tomatoes shipped for table use last year and it has been estimated that a somewhat greater number is grown for canneries, catsup factories, etc. The figures of the National Canners' Association show that 15,222,000 cases of tomatoes (No. 3 size, 24 cans to the case) were packed during the 1914 season. It is possible that a few hundred cars included in the following tabulation were so used. On this account there may be slight errors in the figures for some sections.

The line of demarcation between the regions where the production is principally for table stock and those regions where the crop is grown both for local consumption and for canning probably would pass east and west across the United States through the lower Ohio Valley, and through southern Virginia to Norfolk, the region to the south of this imaginary line specializing in table stock in car lots.

COMMERCIAL SUPPLY OF TABLE TOMATOES.

The total reported shipments of table stock for 1914 were 11,995 cars, nearly one-half of the entire crop being shipped from the State of Florida, which is practically without competition so far as the production of tomatoes for table use is concerned, as the season there is so early that there are few other districts shipping when the Florida product is put on the market. The States next in importance are Mississippi, New Jersey, and Texas, each shipping from 1,100 to 1,500 cars. Ohio and California ship approximately 400 cars each; Tennessee, 300; Illinois, 200; and Indiana, 125. There are no other States reported as having shipments reaching 100 cars.

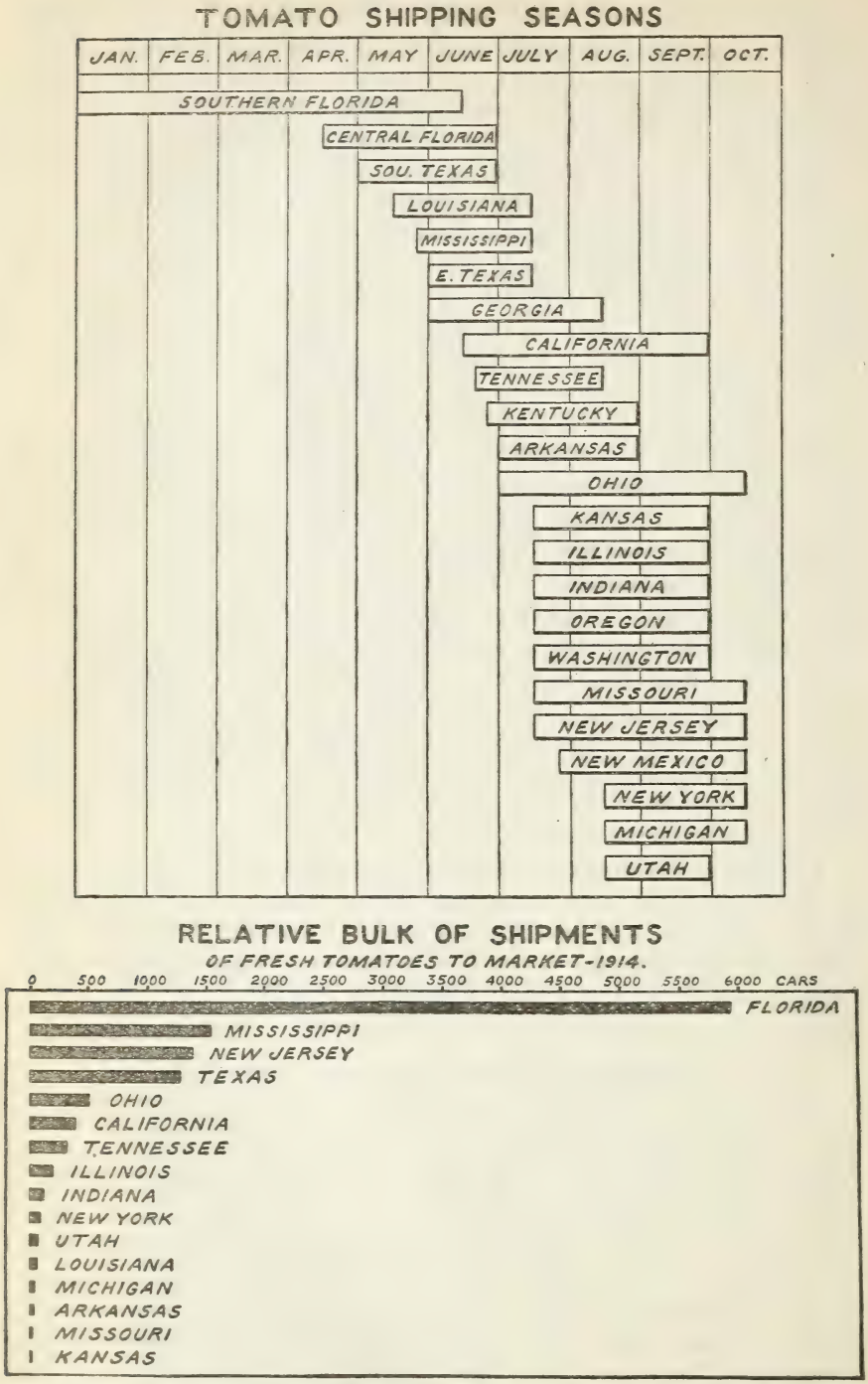

FIG. 2.—Chart showing shipping seasons and amount of fresh tomatoes shipped to market, by States, 1914.

DIFFICULTIES ENCOUNTERED.

Some of the railroads do not keep separate records for tomatoes shipped, but classify them together with a number of other commodities as "vegetables." This has increased to a very considerable degree the difficulty of securing the information here presented. Many of the transportation companies have indicated a willingness to separate this product in their records. Owing to the importance of the crop, it is hoped that all of the transportation companies will adopt such a system. One of the important factors in marketing any crop is, of course, a knowledge of the amount marketed the preceding year, and the probable amount to be handled during the current season.

It is realized that a survey of this character presents many difficulties and can be perfected only as it is subjected to the criticism and correction of the trade, railway officials, and shippers. This compilation and the map showing graphically the location of the important tomato shipping areas and the approximate dates for shipments is believed to be the most comprehensive statement of the commercial tomato crop that has been attempted, and it is published with the belief that it will be found immediately useful to all concerned in marketing the tomato crop in 1915. It is hoped to perfect this work and to make it much more complete in the future.

TOMATO SHIPMENTS, 1914.

All numbers which are marked with an asterisk (*) are estimates, based upon the shipments for 1913 and figures furnished for the 1914 crop previous to its being marketed. Stations believed to be important shipping points but for which no figures have been obtained are marked with a dash (——).

ALABAMA:	
(May 25 to July 1.)	Carloads.
Evergreen	0. 0
State total	0. 0

ARKANSAS:	
(July 1 to Sept. 1.)	
White River district	30. 0
Decatur	9. 0
Judsonia	2. 0
Gravette	1. 0
State total	42. 0

CALIFORNIA: [1]	
(June 15 to Oct. 1.)	
Henderson	*60. 0
Sacramento	60. 0
Merced	47. 0
Los Angeles	45. 0

CALIFORNIA—Continued.	
(June 15 to Oct. 1)—Contd.	Carloads.
Marysville	41. 0
Fullerton	39. 0
Monte	23. 0
Sunnyvale	22. 0
Anaheim	11. 0
San Fernando	10. 0
Florin	5. 0
Lodi	5. 0
Atwater	3. 0
Freeport	3. 0
Puente	3. 0
San Diego	3. 0
San Pedro	3. 0
Mayfield	2. 0
Mountain View	2. 0
Placentia	2. 0
San Francisco	2. 0
Alviso	1. 0

[1] The following shipments of tomatoes in 1914 were reported too late to appear on the map and chart: From Decoto, Cal., 95 cars.

CALIFORNIA—Continued. (June 15 to Oct. 1)—Contd.	Carloads.
Dinuba	1.0
Earl	1.0
Gardena	1.0
Lawrence	1.0
Newmark	1.0
Pasadena	1.0
San Jose	1.0
San Juan Capistrano	1.0
Torrance	1.0
Whittier	1.0
Wilmington	1.0
Lincoln	0.0
State total	403.0

COLORADO: [1] (Aug. 1 to Sept. 15.)	
Rocky Ford	1.0
State total	1.0

FLORIDA: [1] (Southern section, Jan. 1 to June 15.)	
Dania	354.0
Peters	303.0
Pompano	223.0
Homestead	199.0
Colohatchee	198.0
Goulds	193.0
Hallandale	183.0
Fort Lauderdale	181.0
Deerfield	174.0
Delray	167.0
Boynton	151.0
Larkins	150.0
Naranja	144.0
Kendal	95.0
Arch Creek	87.0
Ojus	73.0
Fulford	63.0
Black Point	60.0
Jupiter	59.0
Miami	56.0
Bocaratone	55.0
Fellsmere	48.0
Perrine	41.0
Littleriver	37.0
Quay	19.0
Cocoanut Grove	18.0
Fort Myers	15.0
Yamato	15.0

FLORIDA—Continued. (Southern section, Jan. 1 to June 15)—Continued.	Carloads.
Rockdale	14.0
Stuart	9.5
Viking	9.0
Wabasso	9.0
Lake View	8.0
Benson	6.0
Detroit	5.0
Fort Pierce	5.0
Vero	5.0
Biscayne	2.5
Hobe Sound	1.0
Modello	1.0
Buena Vista	0.0
Iona	0.0
Jensen	0.0
Sanibel	——
Total	3,436.0

(Central section, Apr. 15 to July 1.)	
Palmetto	776.0
Coleman	450.5
Bushnell	152.0
Ellenton	116.0
Parish	92.0
Plant City	90.0
Webster	89.5
Manatee	74.0
Wimauma	74.0
Dade City	61.0
Sarasota	46.0
Bartow	42.0
Fort Green Springs	35.0
Anthony	31.0
Gainesville	30.0
Wildwood	23.0
Oxford	20.3
Terra Ceia	19.0
Winter Garden	15.0
Tildenville	14.0
Homeland	13.0
Lakeland	13.0
Bradentown	12.0
St. Catherine	11.0
Tampa	11.0
Bowling Green	10.5
Dallas	10.0
Lowell	*10.0
Ocala	10.0

[1] The following shipments of tomatoes in 1914 were reported too late to appear on the map and chart: From State of Colorado, 130 cars; from Sanibel, Fla., 75 cars.

FLORIDA—Continued.

(Central section, Apr. 15 to July 1)—Continued.	Carloads.
Erie	9.0
Irvine	9.0
Knights	9.0
Nocatee	9.0
Sparr	9.0
Sumterville	9.0
Belleview	8.0
Oak	8.0
Oneco	8.0
Summerfield	8.0
Vegetable Siding	8.0
Tavares	7.0
Santos	5.0
Orlando	4.3
Bradley Junction	4.0
Eagle Lake	4.0
Leesburg	4.0
Zellwood	4.0
Brooksville	*3.0
Fort Green	3.0
McDonald's Siding	3.0
Murdock	3.0
Turkey Creek	3.0
Montverde	2.0
Ray	2.0
South Lake Weir	2.0
Geneva	1.5
Melbourne	1.5
Hawthorn	1.0
Montclair	1.0
West Apopka	1.0
Kathleen	0.5
Hampton	0.3
Fairvilla	0.0
Malabar	0.0
Ocoee	0.0
Orange Lake	0.0
Sydney	0.0
Theressa	0.0
Arcadia	——
Center Hill	——
Evinston	——
McIntosh	——
Micanopy	——
Reddick	——
Total	2,504.9
State total	5,940.9

GEORGIA:

(June 1 to Aug. 15.)	Carloads.
Tifton	6.0
Thomasville	4.0
Cohutta	2.0
Camilla	1.5
Soperton	0.0
Vidalia	0.0
State total	13.5

ILLINOIS:

(July 15 to Oct. 1.)	
Anna	70.0
Cobden	51.0
Grand Chain	41.0
Alto Pass	25.5
Makanda	10.0
Moccasin	5.0
Amboy	4.0
Alma	0.5
State total	207.0

INDIANA:[1]

(July 15 to Oct. 1.)	
Fairmount	110.0
Alexandria	8.0
Princeton	——
State total	118.0

KANSAS:

(July 15 to Oct. 1.)	
Leavenworth	13.0
Humboldt	7.0
State total	20.0

KENTUCKY:

(June 25 to Sept. 1.)	
La Grange	13.0
Science Hill	2.0
Middletown	0.0
State total	15.0

LOUISIANA:

(May 15 to July 15.)	
Napoleonville	28.0
Norwood	26.0
New Orleans	6.0
Roseland	6.0
Monroe	2.5
Jackson	0.5
Bunkie	0.0

[1] The following shipments of tomatoes in 1914 were reported too late to appear on the map and chart: From New Albany, Ind., 6 cars.

Louisiana—Continued. (May 15 to July 15)—Contd.	Carloads.
Shreveport	0.0
Zachary	—
State total	69.0

Michigan: (Aug. 15 to Oct. 15.)	
Benton Harbor	28.0
Jonesville	7.0
Monroe	5.0
Petersburg	4.0
Grand Rapids	—
State total	44.0

Mississippi: (May 25 to July 15.)	
Hazlehurst	650.0
Crystal Springs	609.0
Gallman	100.3
Hopewell	52.1
Terry	35.0
Centerville	29.0
Wesson	13.0
Gatesville	10.3
Fayette	8.0
Martinsville	7.0
Georgetown	5.6
McComb	5.0
Natchez	3.5
Rockport	2.6
Gloster	2.5
Liberty	1.5
Beauregard	1.0
West	0.4
Weathersby	0.3
Enterprise	0.1
Osyka	0.1
Braxton	0.0
Monroe	0.0
Shivers	0.0
Tylertown	0.0
State total	1,536.3

Missouri: (July 15 to Oct. 15.)	
White River district	17.0
Neosho	13.0
Alexandria	1.0
State total	31.0

Nebraska: (July 15 to Oct. 1.)	Carloads.
Nebraska City	3.0
State total	3.0

New Jersey: (July 15 to Oct. 15.)	
Swedesboro	1,346.0
Morganville	50.0
Sicklertown	1.0
Tuckahoe	0.0
State total	1,397.0

New Mexico: (July 25 to Oct. 15.)	
Lakewood	9.0
Farmington	1.5
Mesilla Park	1.0
Las Cruces	0.5
State total	12.0

New York: (Aug. 15 to Oct. 15.)	
Forestville	18.5
Dunkirk	16.0
Perrysburg	15.0
Angola	14.0
Sheridan	7.0
Westfield	6.0
Smiths Mills	5.0
Portland	3.0
Vineyard	3.0
Brocton	2.0
Irving	0.2
Silver Creek	0.0
State total	89.7

Ohio: (July 1 to Oct. 15.)	
Marietta	331.0
Lowell	80.5
Genoa	49.0
Berlin Heights	23.0
Avery	6.0
Waterford	5.1
Elmore	4.0
Port Clinton	2.0
Harrison	1.0
New Philadelphia	0.5
Geneva	0.1
Ashtabula	0.0
State total	502.2

OREGON:

(July 15 to Oct. 1.)	Carloads.
Dillard	11.0
State total	11.0

SOUTH CAROLINA:

(June 1 to Aug. 1.)	
Charleston	0.0
Beaufort	—
Burton	—
State total	0.0

TENNESSEE:

(June 20 to Aug. 15.)	
Humboldt	126.0
Gibson	70.0
Milan	57.5
Bradford	24.0
Medina	14.0
Tazewell Station	11.0
Cades	8.0
Fruitland	3.0
Jackson	3.0
Trenton	2.0
Oakfield	1.5
Dyer	0.5
Arlington	0.0
Sitka	0.0
West	0.0
Chattanooga	—
State total	320.5

TEXAS:

(Southern section, May 1 to July 1.)	
Aransas Pass	40.0
Ingleside	37.0
Rockport	16.0
San Benito	4.0
Asherton	3.0
Corpus Christi	3.0
Carrizo Springs	2.0
Mission	2.0
Islitas	1.5
Portland	0.5
Poteet	0.3
Donna	0.0
Harlingen	0.0
Olmito	0.0
Total	109.3

TEXAS—Continued.

(Eastern section, June 1 to July 15.)	Carloads.
Jacksonville	225.0
Craft	65.0
Dialville	63.0
Turney	63.0
Alto	62.0
Gallatin	57.0
Frankston	50.0
Mount Selman	46.0
Tyler	43.0
Milano	42.0
Bullard	33.0
Maydelle	27.0
Arp	24.0
Frys Gap	24.0
Redlawn	24.0
Ironton	19.0
Pepperwine	17.0
Rusk	15.0
Flint	14.0
Gresham	14.0
Whitehouse	14.0
Ogburn	9.0
Caro	8.0
Cushing	8.0
Nacogdoches	7.0
Sacul	7.0
Goodson	6.0
Appleby	5.5
Clawson	4.0
Dodge	4.0
Lindale	4.0
Sulphur Springs	4.0
Delmer	2.0
Elkhart	2.0
Reese	1.0
Van Raub	1.0
Edgewood	0.5
Liberty	0.1
Boerne	0.0
Hitchcock	0.0
Livingston	0.0
Longview	0.0
Palestine	0.0
Reynolds	0.0
Tenaha	0.0
Willis	0.0
Winnsboro	0.0
Alvin	—
Ponta	—
Total	1,014.1
State total	1,123.4

UTAH: (Aug. 15 to Oct. 1.)	Carloads.
Clearfield	60.0
Roy	6.0
Willard	5.0
Kaysville	4.0
Brigham	2.0
State total	77.0

VIRGINIA: (July 1 to Sept. 1.)	Carloads.
Norfolk	3.5
Accotink Station	——
State total	3.5
WASHINGTON: (July 15 to Oct. 1.)	
White Salmon	*15.0
State total	15.0
Grand total	11,995.0

PUBLICATIONS OF THE DEPARTMENT.

Department Bulletin 237. Strawberry supply and distribution in 1914. By Wells A. Sherman, Houston F. Walker, and O. W. Schleussner. 1915.

Department Bulletin 266. Outlets and methods of sale for shippers of fruits and vegetables. By J. W. Fisher, jr., J. H. Collins, and Wells A. Sherman. 1915.

Department Bulletin 267. Methods of wholesale distribution of fruits and vegetables. By J. H. Collins, J. W. Fisher, jr., and Wells A. Sherman. 1915.

Farmers' Bulletin 642. Tomato growing in the South. By H. C. Thompson. 1915.

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